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ORIGINAL

March 8, 1999

HAND DELIVERED

Magalie Roman Salas
Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
TW-A325
Washington, D.C. 20554

RECEIVED

MAR 8 1999

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY


Re: RM 9418;
Comments of Andrew Corporation

Dear Ms. Salas:

Transmitted herewith, on behalf of Andrew Corporation, are an original and nine (9) copies of its Comments in the above-referenced proceeding.

If you have any questions concerning this matter, please call me.

Respectfully submitted,


Russ Taylor

Enclosures

No. of Copies rec'd 0+9
List A B C D E

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of

Amendment of Parts 25, 74, 78, 90)
and 101 of the Commission's Rules)
to Facilitate Fixed Point to Point)
Terrestrial Microwave Radio Service)
Licensee Use of the 23 GHz and 10 GHz)
Bands and to Eliminate Certain)
Inconsistencies in Such Rules)

RM-9418

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

To: The Commission

COMMENTS OF ANDREW CORPORATION

Andrew Corporation ("Andrew"), by its attorneys, and pursuant to the provisions of Section 1.405 of the rules and regulations of the Federal Communications Commission ("FCC" or "Commission") and the invitation extended by the Commission in its Public Notice dated February 5, 1999^{1/} hereby submits its comments responsive to the Petition for Rulemaking ("Petition") filed on March 5, 1998 by the Fixed Point to Point Communications Section, Wireless Communications, Division, Telecommunications Industry Association ("TIA"). The TIA Petition seeks modification of the FCC's rules to promote the use of the bands 21.2-23.6 GHz (the "23 GHz Band") and 10.55-10.68 GHz (the "10 GHz Band").

Introduction

Andrew, founded in 1937, is a global provider of electronic communications systems, equipment, and services. Recognized as a company with a tradition of technological

^{1/} Public Notice, Report No. 2309, released February 5, 1999.

innovation and customer satisfaction, Andrew provides products and services to countless markets and for numerous applications worldwide. The principal products manufactured or distributed by Andrew include:

- Coaxial cable, Connectors and Accessories
- Terrestrial Microwave, Earth Station, Base Station, and Broadcast Antennas
- Wireless Handset Accessories
- In-Building Communications Systems
- Defense Electronics

Andrew Corporation is headquartered in Orland Park, Illinois and has in excess of 4200 employees worldwide.

Among the products manufactured and distributed by Andrew throughout the world are antennas which transmit in the 23 GHz and 10 GHz bands. These antennas, which range in size from one foot through six feet in diameter, marketed under the ValuLine brand, are widely used in many countries today and conform to all technical specifications under which they operate. For the models that are 1.5 feet in diameter, however, the technical specifications under which they operate do not conform completely to the standards recommended by TIA for antennas in these bands. Accordingly, while Andrew strongly supports TIA's Petition, it believes further refinements are necessary to ensure full use of the 23 GHz and 10 GHz bands, as TIA envisions. Because Andrew believes that minor modifications to TIA's proposal will promote the desired increased use of the 23 GHz and 10 GHz bands, it is pleased to have this opportunity to submit the following comments.

Comments

Andrew strongly supports TIA's efforts to make additional spectrum available for fixed point to point terrestrial microwave ("FS") users. In Andrew's experience, a variety of

factors have promoted the need for FS spectrum capacity. Among those factors are the proliferation of wireless communications networks which require short hop microwave links to interconnect with switching offices and the telephone network, the increased number of systems used for wireless internet access, and the expansion of private microwave networks for the transmission of voice and data traffic. Accordingly, Andrew believes, with TIA, that the 23 GHz and 10 GHz bands should be made capable of greater use by FS licensees.

Andrew agrees with TIA that Section 101.115 of the FCC's regulations requires modification to promote the greater use of the 23 GHz and 10 GHz bands. In particular, it agrees that the current minimum antenna gain requirements mandate the production of antennas that are larger than commercially viable. It therefore supports the reduction in the minimum antenna gain from 38 dBi to 33.5 dBi. As TIA portrays, this modification will allow antennas to be manufactured for use in the United States consistent with the standards employed in other countries.

TIA also recognizes that in reducing the minimum antenna gain it is necessary to modify the sidelobe radiation suppression pattern.^{2/} In particular, TIA proposes that for 23 GHz antennas, the first breakpoint of the radiation pattern envelope ("RPE") be 20 dB for category A antennas and 17 dB for category B antennas. Andrew believes that this requirement remains too restrictive and is otherwise inconsistent with equipment successfully deployed in other countries. In particular, Andrew proposes that for 23 GHz antennas, the first RPE breakpoint for category A antennas shall be 18 dB, and the first breakpoint for category B antennas shall be 17 dB. Andrew suggests that sound engineering principles dictate

^{2/} See TIA Petition at B.14.

that, because in the 10 GHz band, antennas can be expected to be twice as large, but the frequency is approximately half of that in the 23 GHz band, the same minimum suppression patterns apply to the 10 GHz band as well.


Andrew believes that these standards are more consistent with equipment already in use throughout the world. For example, in Europe, the first RPE breakpoint for 23 GHz category B antennas is 13.5 dB. Similarly, in Brazil, the first RPE breakpoint for 23 GHz antennas is 16.5 and 15.5 dB for category A and category B antennas, respectively. Andrew's existing ValuLine products meet these standards without, to the best of Andrew's knowledge, producing harmful interference.

The further modification of the minimum suppression pattern as Andrew suggests, to permit use of antennas employing this proven technology, will allow the production of antennas for worldwide markets, rather than the production of antennas merely for U.S. users. The ability to produce equipment which must meet a single standard will ultimately result in cost savings to microwave users.

WHEREFORE, THE PREMISES CONSIDERED, Andrew Corporation submits the foregoing comments and requests that the Federal Communications Commission initiate a rule making proceeding designed to amend the regulations in the manner outlined herein.

Respectfully submitted,

ANDREW CORPORATION



Russell H. Fox
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Its Attorneys

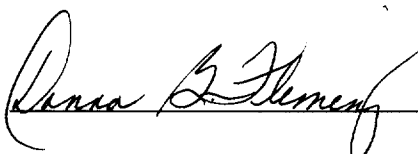
Dated: March 8, 1999

CERTIFICATE OF SERVICE

I, Donna Fleming, a secretary in the law firm of Gardner, Carton & Douglas, certify that I have this 8th day of March, 1999, caused to be sent by first-class U.S. mail, postage-prepaid, a copy of the foregoing Comments to the following:

Denis Couillard
Eric Schimmel
Telecommunications Industry Association
2500 Wilson Boulevard, Suite 300
Arlington, VA 22201

Robert J. Miller
Gardere & Wynne, L.L.P.
1601 Elm Street, Suite 3000
Dallas, TX 75201



Donna Fleming